

We Claim:

1. A method for installing a subsea completion system comprising a conductor housing which is positioned on the sea floor, a wellhead which is landed in the conductor housing, at least one casing hanger which connected to a corresponding casing string, a tubing hanger which is connected to a production tubing string and which includes at least one tubing hanger production bore, and a christmas tree which is installed over the wellhead and which includes at least one production bore, the method comprising the steps of:

- (a) installing the conductor housing on the sea floor;
- (b) landing the wellhead in the conductor housing;
- (c) securing a BOP to the wellhead;
- (d) landing the casing hanger in the wellhead through the BOP;
- (e) connecting the tubing hanger to a THRT;
- (f) landing the tubing hanger in the wellhead or the casing hanger through the BOP;
- (g) installing a wireline plug in the tubing hanger production bore through the THRT;
- (h) retrieving the THRT;
- (i) retrieving the BOP;
- (j) securing an ROSL to the christmas tree;
- (k) landing the christmas tree on the wellhead; and
- (l) retrieving the wireline plug from the tubing hanger production bore using the ROSL.

2. The method of claim 1, further comprising the step of flow testing the well back to a normal production facility.

3. The method of claim 1, wherein step (k) is performed with at least one of a cable and a drill string connected to the ROSL.

5 4. The method of claim 1, further comprising the step of retrieving the ROSL after step (l).

5. The method of claim 4, further comprising the step of installing a tree cap on the christmas tree using an ROV.

6. The method of claim 1, further comprising the steps of:  
10 mounting a CGB on the conductor housing prior to step (c); and  
orienting the tubing hanger relative to the CGB.

7. The method of claim 6, further comprising the step of orienting the christmas tree relative to the CGB.

8. The method of claim 6, wherein the step of orienting the tubing hanger  
15 relative to the CGB comprises the steps of:

landing a THOT on the wellhead prior to step (c);  
orienting the THOT relative to the CGB; and  
orienting the tubing hanger relative to the THOT.

9. The method of claim 1, further comprising the steps of:  
20 securing the christmas tree to a mudmat prior to step (k);  
landing the christmas tree and the mudmat on the sea floor;  
releasing the christmas tree from the mudmat; and  
landing the christmas tree on the wellhead.

10. The method of claim 9, further comprising the steps of:
- mounting a CGB on the conductor housing prior to step (c);
  - securing a THOT to the wellhead prior to step (c);
  - orienting the THOT relative to the CGB;
  - 5 landing the christmas tree on the THOT subsequent to step (i);
  - securing the christmas tree to the THOT;
  - moving the christmas tree and the THOT from the wellhead to the mudmat;
  - releasing the THOT from the christmas tree; and
  - 10 landing the christmas tree on the wellhead.
11. An apparatus for installing a subsea completion system comprising a conductor housing which is positioned on the sea floor, a wellhead which is landed in the conductor housing, at least one casing hanger which connected to a corresponding casing string, a tubing hanger which is connected to a production
- 15 tubing string and which includes at least one tubing hanger production bore, and a christmas tree which is installed over the wellhead and which includes at least one production bore that is aligned with the tubing hanger production bore, the apparatus comprising:
- an ROSL which comprises an elongated body; a bore which extends
  - 20 longitudinally through the body; an elongated stem which is positioned in the bore; a plug tool which is connected to a second end of the stem; means for removably connecting the ROSL to the christmas tree; and means for moving the stem through

the bore to thereby move the plug tool through the production bore and into engagement with a plug which is located in the tubing hanger production bore; and  
at least one of a cable and a drill string which is connected to the ROSL and by which the ROSL and the christmas tree are lowered to the wellhead.

5           12.    The apparatus of claim 11, wherein the stem moving means comprises a hydraulic cylinder which includes a piston that is connected to the stem.

          13.    The apparatus of claim 12, wherein the hydraulic cylinder comprises the body of the ROSL.

          14.    The apparatus of claim 11, further comprising:  
10           a CGB which is mounted on the conductor housing; and  
              means for orienting the tubing hanger relative to the CGB;

          15.    The apparatus of claim 14, wherein the orienting means comprises a THOT.

          16.    The apparatus of claim 15, wherein the THOT comprises:  
15           a body;  
              a central bore which extends axially through the body; and  
              a funnel which is connected to the body and which is adapted to engage a corresponding hub that is connected to the CGB when the THOT is properly oriented relative to the CGB.

20           17.    The apparatus of claim 16, wherein the THOT further comprises:  
              an orientation pin; and  
              means for extending the orientation pin laterally into the central bore.

18. The apparatus of claim 17, wherein the extending means comprises a hydraulic cylinder.

19. The apparatus of claim 18, wherein the hydraulic cylinder may be actuated by an ROV.

5        20. The apparatus of claim 17, further comprising a tubing hanger running tool which is connected to the tubing hanger and which includes a downwardly facing helical surface that engages the orientation pin as the tubing hanger is lowered into the wellhead to thereby orient the tubing hanger relative to the THOT.